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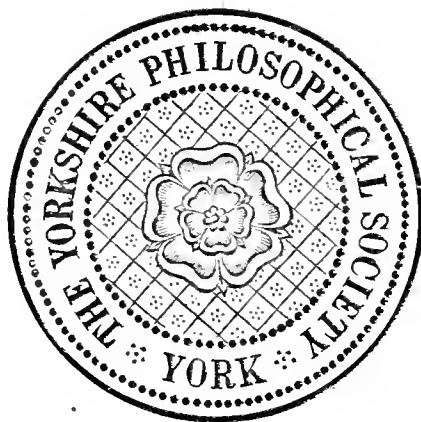
ANNUAL REPORT  
OF THE COUNCIL  
OF THE  
YORKSHIRE  
PHILOSOPHICAL SOCIETY  
FOR THE YEAR  
1930  
PRESENTED TO THE ANNUAL MEETING,  
FEBRUARY 9th, 1931.

---

PRINTED BY ORDER OF THE COUNCIL.  
1931.

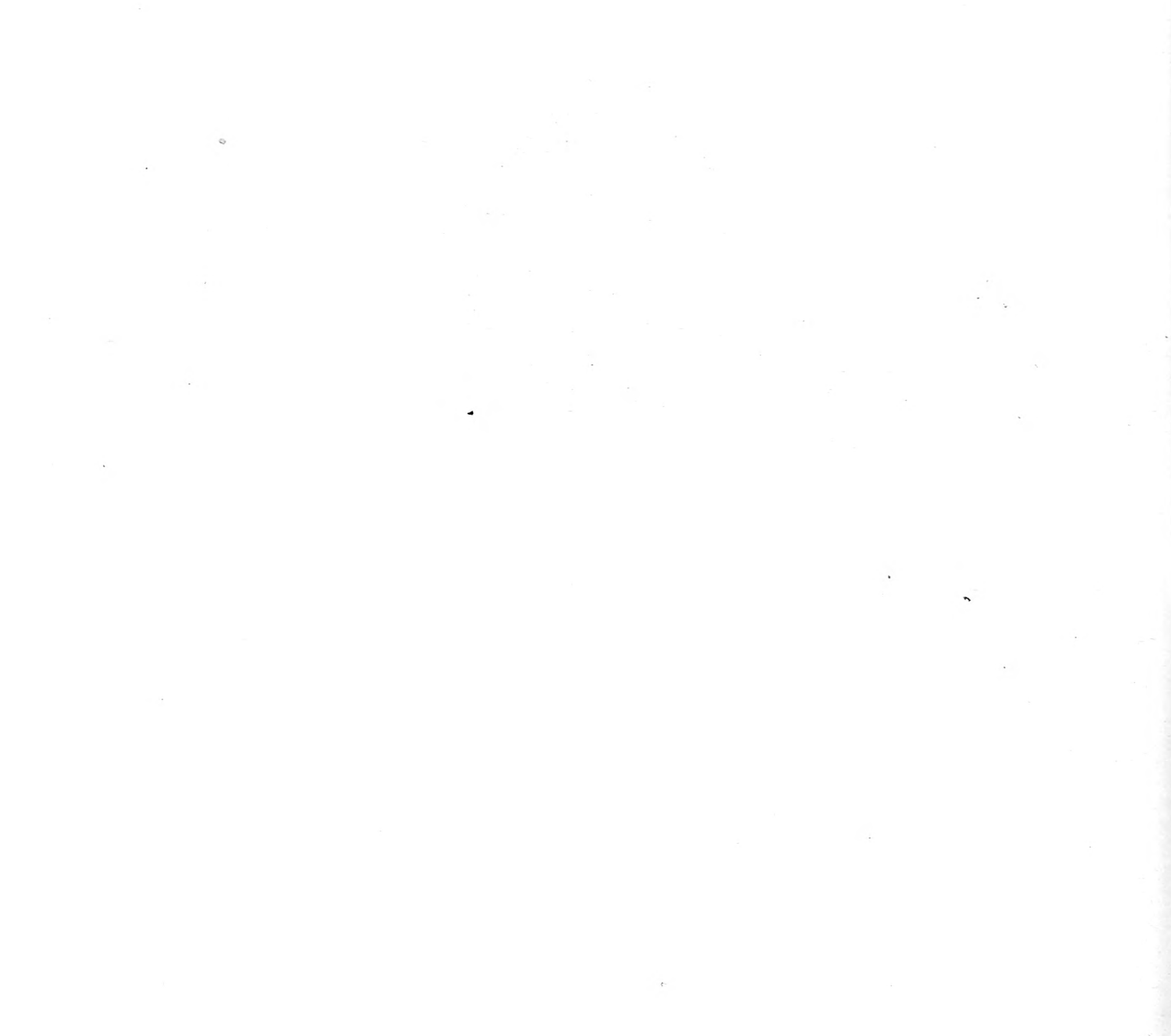
[Issued March 31st, 1931.]





With the Keeper's Compliments.

THE YORKSHIRE MUSEUM,  
YORK.



ANNUAL REPORT  
OF THE COUNCIL  
OF THE  
YORKSHIRE  
PHILOSOPHICAL SOCIETY

FOR THE YEAR

1930

PRESENTED TO THE ANNUAL MEETING,

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[Issued March 31st, 1931.]



FORM  
OF A  
BEQUEST TO THE SOCIETY.

—O—

Every person desirous of bequeathing to the Society any sum of Money, Specimens, Books, Instruments, or other Property, is requested to make use of the following form:—

*I give and bequeath to the Trustees, for the time being, of the Society established at York, called “**The Yorkshire Philosophical Society,**” for the use of the said Society, the sum of \_\_\_\_\_ to be paid out of such part of my personal estate as I may legally charge therewith. [Or here enumerate the effects or property intended to be bequeathed.] And I direct that the receipt of the Treasurer of the said Society, for the time being, shall be an effectual discharge to my Executors for the said legacy.*



# The Yorkshire Philosophical Society.

(Founded 1822).

## Patrons:

HIS MAJESTY THE KING.

HER MAJESTY THE QUEEN.

---

## Trustees:

GEORGE A. AUDEN, M.D.

CHAS. E. ELMHIRST, J.P.

RT. HON. LORD DERAMORE.

## President:

William Herbert St. Quintin, D.L., J.P., F.Z.S.

## Vice-Presidents:

H. M. Platnauer, B.Sc.

W. A. Evelyn, M.A., M.D.

Ald. W. H. Birch, J.P.

Chas. E. Elmhirst, J.P.

S. Walker, F.E.S.

W. Harvey Brook.

H. J. Wilkinson.

Col. W. A. White, J.P.

Arthur Hurst, A.K.C.

Sydney H. Smith, F.Z.S.

Richard Thompson.

J. Triffitt.

## Council:

*Elected 1929...* E. Baker.

C. E. N. Bromehead, B.A., F.G.S.

G. W. Daniel.

Rev. A. Raine, M.A.

*Elected 1930...* R. H. Chapman.

Ernest W. Fox (Elected 1931).

Frank W. Terry.

Geoffrey Thompson, M.A.

*Elected 1931...* J. L. Brockbank, M.A., H.M.I.

John A. Cooper.

Sidney Melmore, B.Sc., F.G.S.

A. W. Ping, M.A.

## Hon. Treasurer:

S. Walker, F.E.S.

## Hon. Secretary:

Chas. E. Elmhirst, J.P.

## Committees—

### General Purposes and Finance Committee:

J. L. Brockbank.	Sidney Melmore.
W. Harvey Brook.	Rev. A. Raine.
John A. Cooper.	Frank W. Terry.
Dr. W. A. Evelyn.	J. Triffitt.
Arthur Hurst.	S. Walker.

Chas. E. Elmhirst, *Secretary*.

---

### Garden Committee:

E. Baker.	Arthur Hurst.
R. H. Chapman.	Sidney Melmore.
G. W. Daniel.	A. W. Ping.
E. W. Fox.	Col. W. A. White.

S. Walker, *Secretary*.

---

### Museum Committee:

C. E. N. Bromehead.	Rev. A. Raine.
W. Harvey Brook.	J. Scott.
Dr. W. A. Evelyn.	H. Sowden.
Arthur Hurst.	Geoffrey Thompson.
Sidney Melmore.	S. Walker.
W. H. St. Quintin.	H. J. Wilkinson.

Dr. Collinge, *Secretary*.

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### Abbey Restoration Committee:

Ald. W. H. Birch.	Frank W. Terry.
John A. Cooper.	J. Triffitt.
Chas. E. Elmhirst.	S. Walker.
Rev. A. Raine.	H. J. Wilkinson.
Sydney H. Smith.	Dr. Collinge, <i>Secretary</i> .

**Building Sub-Committee :**

Ald. W. H. Birch.	J. Trillitt.
Chas. E. Elmhirst.	S. Walker.
Dr. Collinge. <i>Secretary</i> .	

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The President, Hon. Secretary, Hon. Treasurer and Keeper  
are *ex-officio* members of all Committees.

**York and District Field Naturalists' Section.**

*President :*

A. J. A. Woodcock, M.Sc., F.E.S.

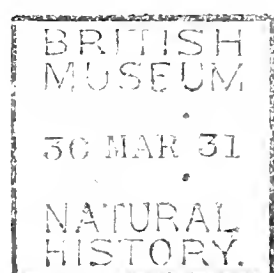
*Vice-Presidents :*

H. J. Wilkinson.	C. R. Featherstone, M.A.
V. G. F. Zimmermann.	F. Vear.

*Hon. Secretaries :* A. W. Ping, M.A., K. G. Chilman.

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REPORT OF THE COUNCIL  
OF THE  
YORKSHIRE PHILOSOPHICAL SOCIETY,  
9th FEBRUARY, 1931.

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THE outstanding event of the past year has been the commencement of the work upon the repair and reconstruction of the Hospitium. Early in the year the Council decided to enlarge the upper room and also, on the recommendation of H.M. Office of Works, to partially reconstruct the roof, which in many parts had fallen into decay.

Your Council look forward to the completion of this work at an early date. The extra and unseen work have entailed a financial outlay very much in excess of the original estimate. In June last a further appeal for financial assistance was made to the members of the Society and the general public. The response, however, has been very disappointing. The Council would remind members that their donations, however small, may be spread over three, four or five years. It is sincerely to be hoped that before the Hospitium is reopened the deficit will be subscribed.

Various repairs have been carried out on the Museum Lodge and the Manor Lane Cottage.

The following is a full list of the Lectures delivered in the Tempest Anderson Hall during the past year:—

Thursday, January 9th.—“Ulster.” By Ernest Patton.

Thursday, January 23rd.—“The Illuminated Manuscripts in York Minster Library.” By The Rev. F. Harrison, M.A., F.S.A.

Thursday, February 6th.—“Mediæval Architects.” By Prof. A. Hamilton Thompson, M.A., D.Litt., F.S.A.

Thursday, February 20th.—“Roman Chester.” By Prof. R. Newstead, F.R.S.

Thursday, March 6th.—“The Story of the Incas of Peru.” By A. Stuart McNairn, F.R.G.S.

Thursday, October 16th.—“Malta, ever old and new.” By the Rev. F. Fitzpatrick.

Thursday, October 30th.—“Forests of Nigeria.” By R. St. Barbe Baker.

Thursday, November 13th. “Faces and Finger Prints.” By Dr. Ainsworth Mitchell, M.A., D.Sc.

Thursday, November 27th.—“Scenes of Indian Life.” By William Marriott.

Thursday, December 11th.—“Sea Hawks.” By Capt. C. W. R. Knight, M.C., F.Z.S.

The Annual Meeting of the Yorkshire Dialect Society was held in the Tempest Anderson Hall, on January 25th.

The Autumn Course of Lectures of the York University Extension Society was given in the Tempest Anderson Hall.

The number of new members elected during the year has fallen below the average. A leaflet setting forth the privileges of members may be obtained from the Keeper of the Museum, as also nomination forms and copies of the Laws.

The number of visitors to the Gardens, Ruins and Museums has been less than usual, in part due to the unfavourable weather prevailing through July, August, and September, and also to the closing of the Hospitium.

The Society has during the last year lost two Honorary Members, viz., Professor A. P. Pavlow, who was elected in 1889, and C. J. Leyland, elected in 1891.

By a unanimous vote of the Council Prof. G. Baldwin Brown, M.A., LL.D., F.S.A., Watson Gordon Professor of Fine Art, The University, Edinburgh, and R. Mortimer Wheeler, M.C., D.Litt., M.A., F.S.A., Keeper and Secretary of the London Museum, Lancaster House, London, S.W., have been elected Honorary Members of the Society.

FIELD NATURALISTS' SECTION. The Field Naturalists' Section has continued its work with unabated vigour during the year, although the weather conditions in the summer months rather marred several of the Excursions. It was very pleasing, however, to have a joint Excursion with neighbouring Societies, and the Excursion with the Darlington and Teesdale Natural History Society and the Leeds Field Club, to Askham Bogs was a great success, upwards of 30 naturalists being present.

A distinctly helpful addition to the usefulness of the Section has been the gift of the late Mr. John Mennell's Moss Herbarium, by his widow. It is intended that this Herbarium shall be available for reference by members of the Section. A complete list of books in the library has been printed by the kindness of the parent Society, and copies circulated. Membership stands at 117, a net increase of 11.

The Lectures and Excursions during 1930 have been as follows:—

January 15th.—Lantern Lecture: "More Family Affairs in Birdland." F. Vear.

January 29th.—Botanical Recorder's Report. J. H. Evers. Lantern Lecture: "Trees in the Museum Gardens." H. J. Wilkinson.

February 12th.—Two Lecturettes. H. Sowden and W. G. Bramley.

February 26th.—Entomological Recorder's Report. A. Smith. Paper: "Melanism in Geometer Moths." A. J. A. Woodcock, M.Sc.

March 12th.—Lantern Lecture: "Birds of the Yorkshire Hills and Dales." F. Jefferson.

March 26th.—Recorder's Reports. Vertebrate Zoology, S. H. Smith, F.Z.S. Ornithology, V. G. F. Zimmermann.

April 2nd.—Annual Meeting.

June 7th.—Excursion to Allerthorpe Common.

June 18th.—The City Walls.

June 28th.—Excursion to Millington Springs.

July 9th.—An evening at Poppleton.

July 16th.—Excursion to Sandburn.

July 23rd.—Excursion to Castle Howard.

August 23rd.—Excursion to Askham Bogs.

(Jointly with the Darlington Society and the Leeds Field Club).

September 20th.—Fungus Foray at Stillington Common.

October 1st.—Presidential Address: "The Value of Entomological Studies." A. J. A. Woodcock, M.Sc., F.E.S.

October 15th.—General Exhibit Night.

October 29th.—Lantern Lecture: "Life in the Sea." Prof. W. Garstang, M.A., D.Sc.

November 12th.—Geological Recorder's Report. J. A. Dell, M.Sc. Paper: "Meteorites." S. Melmore, B.Sc., F.G.S.

November 26th.—Lantern Lecture and Exhibits. "Denizens of Fresh Water." C. Allen.

December 10th.—Conchological Recorder's Report. Paper: "*Helix aspersa*." H. Sowden.

December 17th.—Exhibit Night.

## NEW MEMBERS, ELECTED IN 1930.

Appleton, C. H., 7, Clayton Street.  
 Bakes, Miss M. M., 7, Marygate.  
 Benson, Rev. R. W., M.A., St. Barnabas Vicarage.  
 Brighthouse, T. K., M.A., 3, Chestnut Avenue, Heworth.  
 Burgess, F. G., M.P., 2, St. Peter's Terrace.  
 Collinson, J. H., M.A., Waite's Hotel.  
 Cuss, T. G., 7, Queen Anne's Road.  
 Davies, A. F., 34, St. Olave's Road.  
 Davis, F. S., 12, Longfield Terrace.  
 Fairn, R. D., B.Sc., 31, St. Mary's.  
 Farrow, M. B., St. Mary's Cottage, Marygate.  
 Gray, Mrs. Edwin, Gray's Court.  
 Heslop, J. P., St. Andrew's House, Spen Lane.  
 Kirton, Mrs. F., 33, Markham Street.  
 Lamb, G., Colliergate.  
 Leigh, Miss M. I., 9, Falsgrave Crescent.  
 Lister, A. R., M.C., M.B., B.Ch., F.R.C.S., 39, Bootham.  
 Mann, Gapt. E. H., M.C., Thorpe Underwood Hall.  
 Milward, Mrs. A. H., 18, St. Paul's Square.  
 Roberts, A., M.A., 20, Scarcroft Road.  
 Roberts, T. C., 30, Sycamore Terrace.  
 Shipley, C. W., Southlands House.  
 Staines, E. E., Lansdowne, 21, Wetherby Road.  
 Wetherell, W. H., 44, Holgate Road.  
 Wilcox, R. L., M.R.C.S., Junior Constitutional Club, W. 1.

## DEATHS.

## HONORARY MEMBERS.

Leyland, C. J., Haggerston Castle, Northumberland.  
 Pavlow, Prof. A. P., Moscow University, Russia.

## MEMBERS.

Brown, W. P., Davygate.  
 Buckton, G. F., Fairmount House, The Mount.  
 Burrell, Miss, 2, Ellison Terrace.  
 Dodsworth, A. T., 67, Micklegate.  
 Glaisby, W., 4, St. Leonard's Place.  
 Hey, Miss L. M., 38, Queen Anne's Road.  
 Sumner, Miss L., Kelbarrow, Grasmere.  
 Swift, H. L., "Sunny Bank," Clifton.  
 Wyatt, S. L., St. Olave's House, Marygate.



LADY SUBSCRIBERS.

Powell, Mrs. S. A., 37, Queen Anne's Road.  
 Singleton, Mrs. E., 49, Monkgate.

RESIGNATIONS.

Members, 32.      Lady Subscribers, 3.      Associates, 1.

DEATH AND RESIGNATION.

Members	..	..	..	..	41
Lady Subscribers	..	..	..		5
Associates	..	..	..	..	1
					—
					47

NEW MEMBERS.

25

TOTAL MEMBERSHIP ON 31st DECEMBER,  
 1930.

Honorary Members	..	..		30
Members	..	..	..	389
Lady Subscribers	..	..	..	46
Associates	..	..	..	12
				—
				477
				—

## LIST OF HONORARY MEMBERS.

1. 1927. Bather, F. A., M.A., D.Sc., F.R.S., F.G.S., 46, Marryat Road, London, S.W. 19.
2. 1926. Benson, George, A.R.I.B.A, Thirsk Road, Easingwold
3. 1897. Berget, Baron A., Sorbonne, Paris
4. 1888. Bobretzki, Dr., The University, Kiev
5. 1906. Bower, F. O., M.A., Sc.D., LL.D., F.R.S., The Crescent, Ripon
6. 1930. Brown, Prof. G. Baldwin, M.A., LL.D., F.S.A., 18, Atholl Crescent, Edinburgh.
7. 1923. Clarke, Wm. Eagle, I.S.O., LL.D., F.R.S.E., The Royal Scottish Museum, Edinburgh
8. 1924. Collingwood, R. G., M.A., F.S.A., Haverfield Library, Ashmolean Museum, Oxford
9. 1906. Cornish, Vaughan, D.Sc., Inglewood, Camberley, Surrey
10. 1898. Crichton-Browne, Sir James, M.D., LL.D., D.Sc., F.R.S., 45, Hans Place, London, S.W. 1.
11. 1926. Fox, Cyril, Ph.D., F.S.A., Director of the National Museum of Wales, Cardiff
12. 1920. Grabham, Oxley, M.A., Heron Cottage, Thornton Dale, Yorks.
13. 1923. Harmer, Sir Sidney F., K.B.E., Sc.D., F.R.S., The Old Manor House, Melbourn, near Royston, Herts.
14. 1924. Kendall, Prof. Percy F., D.Sc., F.R.S., F.G.S., 1, Devas Road, London, S.W. 20.
15. 1926. Keith, Sir Arthur, M.D., LL.D., F.R.C.S., F.R.S., Conservator of Museum and Hunterian Professor, Royal College of Surgeons of England, London, W.C.
16. — Lightfoot, Thomas, Masham, Yorks.
17. 1929. Maclagan, Eric, C.B.E., M.A., F.S.A., Director and Secretary of the Victoria and Albert Museum, London, S.W. 1.
18. 1901. Macnamara, W. H., Railway Commission, Courts of Justice, London
19. 1925. Marriott, Sir John A. R., M.A., 17, Belgrave Square, London
20. 1906. Müller, Sophus, Prindsens Palais, Copenhagen
21. 1926. Peers, C. R., C.B.E., M.A., F.B.A., F.S.A., Chief Inspector of Ancient Monuments, H.M. Office of Works, London
22. 1927. Regan, C. Tate, M.A., F.R.S., F.L.S., Director of the British Museum (Nat. Hist.), London, S.W.
23. — Sadler, Sir Michael Ernest, K.C.S.I., C.B., D.Litt., LL.D., Master of University College, Oxford
24. 1906. Shetelig, Dr. Haakon, Bergens Museum, Bergen, Norway
25. 1924. Smith, Arthur H., M.A., F.S.A., 2, Balfour Road, Weybridge, Surrey
26. 1929. Thompson, Professor A. Hamilton, M.A., D.Litt., F.S.A., The University, Leeds
27. 1930. Wheeler, R. Mortimer, M.C., D.Litt., M.A., F.S.A., London Museum, Lancaster House, London, S.W.
28. 1926. Woods, Henry, M.A., F.R.S., Sedgwick Museum, Cambridge
29. 1923. Woodward, Sir A. Smith, LL.D., F.R.S., F.G.S., Hill Place, Hayward's Heath, Sussex
30. 1922. Yeld, George, M.A., Orleton, Gerrards Cross, Bucks.

THE TREASURER'S ACCOUNT IN CONNECTION WITH THE FUND FOUNDED BY THE LATE  
WM. REED, ESQ., FOR SPECIFIC PURPOSES, 1930.

Dr.	INCOME.	EXPENDITURE.	Cr.
	£ s. d.		£ s. d.
To Balance brought forward...	... ..	By New Books ... ..	... ..
Interest on York Corporation 3% Redeemable Stock, less tax ... ..	... ..	Excess of Income over Expenditure ... ..	... ..
Interest on £50 placed on Deposit with Midland Bank Ltd. ... ..	... ..		... ..
Income Tax recovered, 1930 ... ..	... ..		... ..
Bank Interest ... ..	... ..		... ..
	£43 11 6		£43 11 6

BALANCE SHEET.			
Amount of Fund on 31st December, 1930	£ s. d.	Amount invested in York Corporation 3 % Redeemable	£ s. d.
...	... 670 1 6	Stock ... ..	... 600 0 0
		Amount placed on Deposit with the Midland Bank Ltd....	50 0 0
		Balance ... ..	... 20 1 6
	<hr/> £670 1 6		<hr/> £670 1 6

S. WALKER, Hon. Treasurer.  
Audited and found correct,  
FREDK. ABRAHAMSON,  
January 23rd, 1931.

**Dr.** ST. MARY'S ABBEY RESTORATION FUND, 1930. **Cr.**

INCOME.		EXPENDITURE.	
	£ s. d.		£ s. d.
To Balance brought forward .. ..	250 6 7	By £247 3s. 2d. 5% War Stock ..	250 0 0
„ Subscriptions for 1930 .. ..	91 14 0	„ G. Walker & Son (Repair of Hospitium)	2050 0 0
„ Amount transferred from Champney Bequest	2141 15 7	„ Supervisor's Fees .. ..	22 10 0
„ Interest on 5% War Stock .. ..	12 7 0	„ Printing, Postages, etc. .. ..	11 18 6
		„ General Expenses .. ..	2 0 11
		„ Bank Commission less Interest ..	2 6 0
		„ Balance .. ..	157 7 9
	<u>£2496 3 2</u>		<u>£2496 3 2</u>

**BALANCE SHEET.**

	£ s. d.		£ s. d.
To Amount of Fund 31st December, 1930 ..	404 10 11	By Amount invested in 5% War Stock ..	247 3 2
		„ Balance at Midland Bank Ltd. ..	157 7 9
	<u>£404 10 11</u>		<u>£404 10 11</u>

**STATEMENT OF FUND.**

	£ s. d.		£ s. d.
To Subscriptions received to 31st December, 1930	373 19 0	By Expenditure to 31st December, 1930 ..	2126 7 8
„ Champney Bequest .. ..	2141 15 7	„ Balance .. ..	404 10 11
„ War Stock and Bank Interest .. ..	15 4 0		
	<u>£2530 18 7</u>		<u>£2530 18 7</u>

S. WALKER, *Hon. Treasurer.*  
 Audited and found correct,  
 FREDK. ABRAHAMMS,  
 January 23rd, 1931.

Dr.

## MILLION SHILLING FUND, 1930.

Cr.

INCOME.		EXPENDITURE.	
	£ s. d.		£ s. d.
To Balance brought forward ..	.. 0 11 4	By Ceramic Case ..	.. 288 15 0
" Subscriptions for 1930 ..	.. 11 14 0	" Coin Cabinet ..	.. 72 6 0
" Interest on 5% War Stock ..	.. 11 7 4	" Bank Commission less Interest ..	.. 0 9 0
" £351 6s. 10d. 5% War Stock..	.. 361 1 0	" Balance ..	.. 23 3 8
	<u>£384 13 8</u>		<u>£384 13 8</u>

## BALANCE SHEET.

	£ s. d.		£ s. d.
Amount of Fund, 31st December, 1930 ..	.. 250 13 1	Amount invested in 5% War Stock ..	.. 227 9 5
	<u>£250 13 1</u>	Balance at Midland Bank Ltd. ..	.. 23 3 8
			<u>£250 13 1</u>

## STATEMENT OF FUND.

	£ s. d.		£ s. d.
To Subscriptions received to 31st December, 1930 ..	933 12 8	By Expenditure to 31st December, 1930 ..	.. 815 11 0
" War Stock and Bank Interest less Bank Commission ..	.. 132 11 5	" Balance ..	.. 250 13 1
	<u>£1066 4 1</u>		<u>£1066 4 1</u>

S. WALKER, *Hon. Treasurer.*

Audited and found correct,

FREDK. ABRAMAMS,

January 23rd, 1931.

# THE TREASURER IN ACCOUNT WITH THE YORKSHIRE

<i>Last Year</i>	<b>Dr.</b>	<b>INCOME.</b>						£	s.	d.	£	s.	d.
	<i>Subscriptions:</i>												
	Members ... ..							745	9	0			
	Life Member ... ..							20	0	0			
	County Members ... ..							5	1	0			
	Lady Subscribers ... ..							45	0	0			
	Associates ... ..							14	0	0			
	Ticket Holders (less Refunds) ... ..							15	0	0			
	Arrears ... ..							3	7	6			
	Subscriptions for 1931 paid in advance ... ..							9	0	0			
995	Keys of Gates ... ..							88	7	0			
											945	4	6
	<i>Rents:</i>												
	St. Mary's Lodge ... ..							65	0	0			
	Shop, No. 10 Bootham ... ..							25	0	0			
	York Waterworks Co.—Shed ... ..							15	0	0			
	Do. Light ... ..							0	1	0			
	St. Olave's Vicarage do. ... ..							0	5	0			
	Mr. Hill—Notice Board ... ..							0	1	0			
	Corporation of York, Lease of Exhibition Land ... ..							2	0	0			
	Post Office—Wayleaves ... ..							1	2	0			
	York Diocesan Training College—Boat Yard ... ..							5	0	0			
	Baths Cottage, Marygate ... ..							20	16	0			
	Shop, No. 12 & 14 Bootham ... ..							75	0	0			
123 332	Letting of Rooms for Lectures and Meetings ... ..							84	0	0			
											293	5	0
2075	The late Dr. Anderson's Bequest ... ..										1917	3	3
23	Interest on £918 8s. 9d. India 3% Stock (the late Mr. Rawdon's Bequest) ... ..										24	12	7
	„ £80 Deposit at Midland Bank ... ..										1	13	6
530	Gate Money ... ..										509	17	1
29	Whitsuntide Admission Fees, less expenses ... ..										18	16	8
68	Sale of Picture Postcards, Plans, Reports, etc. ... ..										51	17	6
23	Bowling Green Members' Subscriptions ... ..										22	5	0
	„ „ Locker Rents and Green Fees ... ..										1	18	0
	Donation for holding of Pilgrimage ... ..										5	0	0
	Meteorological Grant for 1930 ... ..										5	0	0
											3796	13	1
	Excess of Expenditure over Income ... ..										45	17	1
											£3842	10	2
	Excess of Expenditure over Income, 1930 ... ..							45	17	1			
	Balance due to Treasurer 31st Dec., 1929 ... ..							53	9	1			
								£99	6	2			

I have audited the Books of the above Society, and from the information and explanations furnished, am of the opinion that the Accounts are in order and correct.

January 23rd, 1931. FREDK. ABRAHAM.

## PHILOSOPHICAL SOCIETY FOR THE YEAR ENDING 31ST DEC., 1930.

Last Year	EXPENDITURE.						Cr.	
							£ s. d.	£ s. d.
	<i>Rent, Rates and Taxes:</i>							
	Crown Rent	...	...	...	...	...	1 0 0	
	Corporation Rent (less tax)	...	...	...	...	...	17 0 0	
	Property Tax and City Rates	...	...	...	...	...	74 10 2	
	Waterworks Company's Rates	...	...	...	...	...	8 0 6	
	Gardeners' License	...	...	...	...	...	3 0 0	
103							<hr/>	103 19 8
	<i>Insurance:</i>							
	Fire Premiums	...	...	...	...	...	18 16 0	
	Boiler Insurance	...	...	...	...	...	8 3 0	
	Employers' Liability Premium	...	...	...	...	...	6 4 8	
	Fidelity Guarantee Premium	...	...	...	...	...	1 10 0	
	National Health and Unemployment Insurance	...	...	...	...	...	28 17 0	
61							<hr/>	63 10 8
13	Telephone Rent and Calls	...	...	...	...	...		14 13 11
	<i>Salaries and Wages:</i>							
	Museums	...	...	...	...	...	1779 15 3	
	Lodge and Gardens	...	...	...	...	...	672 4 2	
2741	Staff Pensions	...	...	...	...	...	202 0 0	
							<hr/>	2653 19 5
	<i>General Additions, Repairs, etc.:</i>							
	MUSEUMS—							
	Additions	...	...	...	...	46 6 10		
	Repairs	...	...	...	...	9 1 5		
	General Expenses	...	...	...	...	117 8 8		
284						<hr/>	172 16 11	
	GARDENS—							
	General Expenses	...	...	...	...	97 1 0		
	Bowling Green	...	...	...	...	5 13 9		
110						<hr/>	102 14 9	
	ESTATE—							
	Entrance Lodge	...	...	...	...	112 0 5		
	Manor House	...	...	...	...	37 9 1		
	Gardener's Cottage	...	...	...	...	28 17 10		
	General Repairs, etc.	...	...	...	...	86 3 0		
389						<hr/>	264 10 4	
784						<hr/>	<hr/>	540 2 0
	<i>Coal, Coke, Gas, and Electricity:</i>							
82	Coal and Coke	...	...	...	...	...	120 17 0	
15	Gas	...	...	...	...	...	13 13 8	
34	Electricity	...	...	...	...	...	49 18 7	
130							<hr/>	175 9 3
44	Library—Books and Binding	...	...	...	...	...	...	47 18 5
55	Lectures	...	...	...	...	...	...	61 1 0
	<i>Printing and Stationery:</i>							
43	Annual Reports and Proceedings	...	...	...	...	...	54 14 6	
41	General Printing and Stationery	...	...	...	...	...	22 6 6	
84							<hr/>	77 1 0
	Fabric Fund	...	...	...	...	...	...	42 18 4
	Deposit Account (Life Membership)	...	...	...	...	...	...	20 0 0
50	Picture Postcards	...	...	...	...	...	...	24 7 6
17	Postages and Receipts	...	...	...	...	...	...	12 10 0
	Cheque Book	...	...	...	...	...	...	1 12 0
	Bank Commission	...	...	...	...	...	...	3 16 0
							<hr/>	<hr/>
								£3842 10 2
	Balance due to Treasurer, 31st Dec., 1930						99 6 2	
							<hr/>	<hr/>
							£99 6 2	

S. WALKER, *Hon. Treasurer*

## THE LATE DR. ANDERSON'S BEQUEST.

	£	s.	d.
Interest on £8,000 New Zealand 4% Inscribed Stock ...	252	0	0
„ on £5,700 London & North Eastern Railway 4% First Preference Stock ...	179	11	0
„ on £2,500 London & North Eastern Railway 4% Second Guaranteed Stock ...	78	15	0
„ on £8,000 Canada 4% Registered Stock ...	252	0	0
„ on £3,219 3s. 5d. Bank of England Stock ...	304	4	3
„ on £5,777 2s. 6d. South Indian Railway 4% Registered Debenture Stock ...	181	19	6
„ on £1,314 13s. 2d. 5% War Loan Stock ...	215	14	6
„ on £2,000 4½% Conversion Loan ...	90	0	0
„ £45 Deposit at Midland Bank ...	1	2	6
Rents of Shops and Dwelling-houses, Nos. 32 and 34 Bootham ...	65	0	0
Income Tax recovered (1 year) ...	296	16	6
	<u>£1917</u>	<u>3</u>	<u>3</u>

Memo:—The above items are shown less tax, if deducted.



Dr.

FABRIC FUND, 1930.

Cr.

INCOME.		EXPENDITURE.	
	£ s. d.	By £147 1s. 11d. 5% War Stock ..	£ s. d.
To Balance brought forward ..	.. 149 4 0	..	.. 149 0 0
" 1 <sup>st</sup> Income Tax recovered, 1930 ..	.. 42 18 4	..	.. 50 13 4
" Interest on 5% War Stock ..	.. 7 7 0	..	..
" Bank Interest ..	.. 0 4 0	..	..
	<u>£109 13 4</u>		<u>£109 13 4</u>

BALANCE SHEET.

	£ s. d.		£ s. d.
Amount of Fund, 31st December, 1930 ..	.. 197 15 3	Amount invested in 5% War Stock ..	.. 147 1 11
	<u>£197 15 3</u>	Balance at Midland Bank Ltd. ..	.. 50 13 4
			<u>£197 15 3</u>

THE LATE MR. JOHN E. CHAMPNEY BEQUEST.

	£ s. d.		£ s. d.
To Balance brought forward ..	.. 49 9 4	By St. Mary's Abbey Restoration Fund ..	.. 2141 15 7
" £1978 15s. 5d. 5% War Stock ..	.. 2028 16 6		
" Interest on 5% War Stock ..	.. 62 8 9		
" Bank Interest ..	.. 1 1 0		
	<u>£2141 15 7</u>		<u>£2141 15 7</u>

S. WALKER, *Hon. Treasurer.*

Audited and found correct,  
FREDK. ABRAMAMS,  
January, 23rd, 1931.

BRITISH  
MUSEUM  
30 MAR 31  
NATURAL  
HISTORY.

THE YORKSHIRE MUSEUM,

YORK.

Report  
of the  
Museum Committee

FOR THE YEAR 1930.



PRINTED BY ORDER OF THE COUNCIL.

1931.



# The Yorkshire Museum,

## YORK.

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*Keeper :*

WALTER E. COLLINGE, D.Sc., M.Sc., F.S.A., F.L.S.,  
M.B.O.U., Hon. F.R.H.S.

*Honorary Curators :*

ARCHÆOLOGY	- - - - -	{ W. HARVEY BROOK. W.A. EVELYN, M.A., M.D. (Cantab.)
GEOLOGY	- - - - -	SIDNEY MELMORE, B.Sc., F.G.S.
ROMAN ANTIQUITIES	- -	Rev. A. RAINE, M.A.
BOTANY	- - - - -	H. J. WILKINSON.
ZOOLOGY	- - - - -	W. H. ST. QUINTIN, F.Z.S.
ENTOMOLOGY	- - - - -	S. WALKER, F.E.S.
CONCHOLOGY	- - - - -	H. SOWDEN.
ASTRONOMY	- - - - -	J. SCOTT.
NUMISMATICS	- - - - -	GEOFFREY THOMPSON, M.A.
CERAMICS	- - - - -	ARTHUR HURST, A.K.C.

*Sub-Curator :* W. WATSON.

*Assistants :* { MISS E. HOLMES.  
FRANCIS T. G. WHITE.

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*Chief Clerk :* ARTHUR COLLEY.

*Museum Attendants :*

WILLIAM RAFTON and MISS G. FISHER.



# THE YORKSHIRE MUSEUM.

## REPORT FOR THE YEAR 1930.

**D**URING the past year considerable time has been devoted to examining the Collections which for lack of space it is impossible to exhibit. Some have been cleaned, many re-labelled, and all are in good condition

The specimens loaned to the Victoria and Albert Museum, South Kensington, for the Exhibition of English Mediæval Art, from May 14th to September 14th, have been returned and placed in their respective collections. As a result of this exhibition many foreign visitors have paid a visit to the Museum to see the remainder of the various collections.

The Yorkshire Architectural and York Archæological Society continues to hold its meetings and house its Library in the Museum.

**EDUCATIONAL WORK.**—During February and March, the Rev. Angelo Raine, B.A., gave a course of six lectures on “The History of York from the coming of the Romans to the Norman Conquest.” The interest was well sustained throughout the course which was well attended.

The City Educational Authorities continue to make use of the Museum Collections. During the year 160 children attended the Museum for study and instruction, and 68 students from the City School of Arts and Crafts.

The Keeper has given numerous short addresses on the different Collections, to various parties of visitors, and to artizans and children on Saturday afternoons.

Amongst the various organizations that have visited the Museum during the past year were:—

March 19th.—The Association of Assistant Librarians (Yorkshire Division).

April 26th.—Sorby Scientific Society, Sheffield.

April 30th.—The Brethren of the Scarborough Masonic Lodges.

May 31st.—Hull Municipal Training College.

May 31st.—Barnsley Grammar School.

June 2nd.—Dutch Journalists.

June 4th.—The Wheelright Grammar School, Dewsbury.

June 11th.—Delegates of the Co-operative Congress.

June 17th.—Heywood Grammar School.

June 21st.—Members of the Yorkshire Photographic Union.

June 26th.—National Association of Master Bakers.

June 28th.—Bradford Foremen's Mutual Benefit Society.

June 28th.—Members of the Order of the Sons of Temperance.

July 9th.—Manchester and District Retail Confectioners' Association.

October 17th.—Harrogate Rotary Club.

October 25th.—British Empire Naturalists' Society.

The Collections or specimens have been studied by J. C. Fenton, Cleckheaton; Prof. Henry Woods, M.A., F.R.S., the Sedgwick Museum, Cambridge; Miss Alice Edleston, Gainford; J. E. Miles, South Shields; E. G. Birley, B.A., Manchester; C. Bryner Jones, Aberystwyth; Dr. W. T. Arkell, M.A., the University Museum, Oxford; W. E. Swinton, B.Sc., the British Museum (Nat. Hist.), London; and Vernon Wilson, Leeds University.

**SPECIAL EXHIBITS.**—Apart from recent donations, special exhibits have been made of a set of photographs of Vesuvius in eruption, and of Flint and Stone Implements found in York.

Turning to the different departments of the Museum:—

**ETHNOLOGY.**—This gallery continues to attract large numbers of visitors, both from an educational and scientific standpoint. A number of minor alterations have been carried out which have made it possible to exhibit further specimens, the most important amongst these are the beautiful series of thirty-nine Anglo-Saxon Cinerary Urns (5th and 6th century)



from the Saxon Cemetery at Heworth, York, which were reassembled by the late Dr. J. H. Gibson; a series of Toasting Stands, and other by-gones.

The Chas. Monkman collection of flint and stone implements has been cleaned and rearranged.

GEOLOGY.—Owing to the repairs to the Hospitium and the transfer of part of its contents to one of the geological galleries, no work has been possible on the Collection of Yorkshire Fossils. The Tertiary Plants in the Reed Collection have, however, been cleaned and remounted. The type specimen of *Ichthyosaurus crassimanus*, Blake (Owen MS.) has been studied in some detail and the results published elsewhere (see page 45).

BOTANY.—The specimens of British Flowering Plants and Ferns in the Herbarium are in fair condition. The foreign specimens require attention and more room.

ASTRONOMY.—During the year a large number of observations have been made. All the instruments have been thoroughly overhauled and cleaned, and are in good order.

NUMISMATICS.—The rearrangement of the collections is now approaching the end of the first stage, and the only coins which have not received a preliminary classification and labelling are the Greek, the Oriental, and the Romans after Commodus, also the Medal collection.

The increased accommodation which has been provided during the year by careful alterations to the existing cabinets is proving most useful in facilitating comparative study of the types. The Northumbrian Stycas have now been examined and sorted out. They are a good and fairly complete series of special interest to this Society, as the Styca is exclusively a Northumbrian coin which circulated in this district, and there have been important finds at York and Bolton Percy. Some further detailed work is still needed on this group, as many are difficult to decipher until compared with other collections. The Society has received various welcome gifts throughout

the year, and there have been a few finds in local excavations or building operations. In October last, about thirty Roman denarii were found in excavating for the new Post Office Parcels Office, between Scarborough Bridge and York Station. Mr. Philip Corder examined thirteen of these which consisted of 2 Domitian, 5 Trajan, 2 Hadrian, 2 Antonius Pius, 1 Faustina I, and 1 Faustina II. Two denarii of Trajan and one of Hadrian Mr. Corder very kindly presented to the Museum. It is, however, matter for great regret that the Society by no means always has the opportunity to inspect and record, and possibly to buy, any objects which may be found. It is highly desirable that any finds should be promptly mentioned to the Keeper, so that they may be adequately inspected *in situ* before being dispersed. Only too often it has happened that coins and other objects have been found and sold privately by the finders, although the Society, if informed in time, would have been glad to inspect and report, or possibly in some cases to buy, and at any rate to make proper scientific use of the facts. The Society's interest is of course specially concentrated on Roman and other coins which have a connection with York or Yorkshire or Northern England, and it is hoped that the tradition may be strengthened that the Society is the natural place to which such objects or finds should be reported or offered in the first place.

CERAMICS.—The specimens in the Ceramic Collections have been maintained in an efficient state during the past year. Many have been cleaned and the labelling of the specimens is progressing. During the year a new case has been provided down the left-hand side of the Central Hall, which has enabled the specimens to be better displayed and seen, as the old cases obstructed too much light, with the result of an increase of interest by our visitors. A good many specimens have been added during the year, the most important being a Rockingham biscuit bust of Earl Fitzwilliam to whose assistance and patronage the factory largely owed its success. This bust has not previously been mentioned in connection with the Rockingham Works, and is probably a duplicate of one made for the Fitzwilliam family, and not for sale, as are other of the

factory's productions. Several rather rare marks on pieces of Yorkshire pottery have also been added to the Collection.

THE LIBRARY.—Many of the Members of the Society seem unaware of the extent and value of the Library, which includes the Reed Bequest (Geological and Natural History works for reference only), the Wooler Bequest, and those volumes obtained by purchase and exchange. The total number of volumes to date is 8,650. Of these 541 are in the Reed Reference Library, and 1,600 in the Wooler Bequest. The whole of the volumes are card catalogued under the following subjects:—

<i>Subject.</i>	<i>No. of Vols.</i>	<i>Subject.</i>	<i>No. of Vols.</i>
Agriculture .. .. .	51	History .. .. .	435
Anthropology and Ethnology	88	Meteorology .. .. .	9
Antiquities .. .. .	367	Mineralogy .. .. .	36
Archæology and Architecture	234	Museum Catalogues & Guides	230
Art .. .. .	33	Numismatics .. .. .	292
Astronomy .. .. .	36	Philosophy .. .. .	8
Bibliography .. .. .	37	Physics .. .. .	33
Biography .. .. .	51	Roman Antiquities .. .. .	121
Botany .. .. .	354	York .. .. .	117
Ceramics .. .. .	24	Zoology .. .. .	1617
Chemistry .. .. .	117	Proceedings and Transactions	
Dictionaries .. .. .	51	of Learned Societies, etc. ..	1339
Egyptology .. .. .	62	Miscellaneous .. .. .	27
Geography .. .. .	118	Wooler Bequest (Mostly	
Geology .. .. .	1160	antiquarian & archæological)	1600

In addition to the above there are a large series of unbound volumes of various serial publications, and Transactions and Proceedings of numerous Societies.

Members are reminded that the Library is open from 10 a.m. to 4 p.m., and that they are entitled to borrow three volumes at a time. All books must be returned within a month, but may be renewed for the same period, if not required by another member.

During the year 65 volumes have been added by purchase, and 55 by presentation, in addition to the usual unbound memoirs.

The number of volumes borrowed was 207.

METEOROLOGY.—Statistics of Station: Longitude,  $1^{\circ} 5' W.$ ; Latitude,  $55^{\circ} 57' N.$ ; height above mean sea level, 56 feet.

The *rainfall* for 1930 was above normal, being 29.24 inches, 4.24 inches above the average for over 50 years. The rain was fairly spread over the year, with the exception of January, July, August and November, when the totals for the months were 3.31, 5.02, 3.28 and 3.14 inches respectively. February, May and October, were the driest months with 0.41, 1.05 and 1.62 inches respectively.

*Temperature* ranged from  $89^{\circ} F.$  on August 28th, to  $22^{\circ} F.$  on March 20th and December 10th: the range of temperature for 1930 being thus  $55.1^{\circ} F.$  as against  $55.4^{\circ} F.$  for 1929. A mean pressure of 1012.1 millibars (1000 millibar = 29.531 inches of mercury) at M.S.L., (corrected for diurnal variations), has been recorded, as against 1015.5 millibars for 1929. January gave the lowest mean for the year, 1003.7 millibars, October next with 1008.2 millibars. February was highest 1023.1 millibars, and June next with 1016.3 millibars. The extreme range was 2.01 inches as compared with 1.60 inches in 1929. The highest reading of the barometer was taken February 9th, at 9 a.m., *viz.*: 30.79 inches, and the lowest on January 12th, at 9 p.m., *viz.*: 28.78 inches.

*Snow or Rain* fell to the amount 29.24 inches or 742.7 mm., as against 22.82 inches or 579.3 mm., for 1929, an increase of 6.42 inches or 163.4 mm., for the year. The heaviest fall of the year occurred on July 22nd, when 30.0 mm. (1.18 inches) fell. The cumulative totals for the years since 1820 are, for the heaviest monthly falls, August 6000.35 mms., October 5753.48 mms., and July 5432.30 mms.

*Observations of Winds* show that during 1930 we had "strong" winds on 7 days (force 4 to 7 on scale 0-12), 2 days more than 1929, and "calm" on 9 days as compared with 8 in 1929. The chief winds have been observed as S. (118), W. (42), N. (75), S.E. (22), S.W. (28), and N.W. (25).

Thunder was heard on 15 days, snow or sleet fell on 13 days, as against 18 days in 1929; and there were hailstorms on 2 days, as against 3 days the previous year.

*Bright Sunshine* was recorded 1214'1 hours as against 1294'0 hours in 1929, a decrease of 79'9 hours for the year.

The daily mean was 3'31 hours, and the percentage of possible sunshine 27 as against 29 in 1929.

After the cold and dry February, spring growths were rather late, and vegetation did not make much progress. The hay crops were fairly good and were gathered in excellent condition. Cereals in this district were on the whole very good, but the wet weather at the end of August and September spoiled the harvest. Potatoes were a fair crop, and were gathered well.

It is urgently requested that any discovery of Archæological interest in the neighbourhood may be brought to the notice of the Keeper of the Museum, or the Honorary Curators, as early as possible.

The Keeper of the Museum will be pleased to give any information in his power, and may be seen daily, Museum engagements permitting.

## CLIMATOLOGICAL SUMMARY—THE YORKSHIRE MUSEUM, YORK, 1930.

Heights above Ground :—Thermometers, 4 feet ; Rain-gauge, 1 foot.

Air Temperature in Degrees Fahrenheit.										Earth Temperature.		Rainfall.			Weather, No. of Days of.					Bright Sunshine.						
1930.	Means of		Min. & Max. Combined.	H. Max.	Day.	L. Min.	Day.	L. Max.	H. Min.	Day.	At 1 ft.	At 4 ft.	Total.	Max. Fall.		Day.	Precipitation in 0.2 mm. or more.	Snow.	Snow lying.	Hail.	Thunder-storm.	Total.	Daily Mean.	Perc. Cent.		
	° F.	° F.												in.	mm.										in.	mm.
Jan.	47.5	36.8	42.1	58	14	26	16	41	48	19	40.5	42.9	3.31	84.1	.67	17.0	26	21	13	2	0	0	33.4	1.08	14	
Feb.	41.3	33.2	37.3	47	27	26	18, 21	36	40	27	38.4	41.5	0.41	10.4	.10	2.5	1	11	4	4	0	1	0	33.8	1.21	12
Mar.	47.5	35.5	41.5	59	31	22	20	35	45	28	40.3	41.4	2.15	54.6	.59	15.0	15	14	9	5	1	0	80.1	2.58	22	
April	52.7	41.0	46.9	64	26	34	22	43	50	24	45.4	44.1	2.24	56.9	.47	11.9	24	16	12	0	0	1	86.8	2.89	24	
May	58.7	43.0	50.9	70	27	32	10	50	50	20	50.7	47.9	1.05	26.7	.25	6.4	7	15	9	0	0	1	136.9	4.42	28	
June	68.3	50.6	59.5	80	6, 30	43	8	56	58	19, 21	57.9	53.0	2.01	51.1	1.17	29.7	18	12	8	0	0	4	199.8	6.66	39	
July	66.8	52.4	59.6	78	1, 2	47	11, 13,	53	61	1	59.6	56.3	5.02	127.5	1.18	30.0	22	17	15	0	0	4	157.2	5.07	31	
Aug.	68.5	52.8	60.7	89	28	45	6	58	62	27, 28	59.8	56.9	3.28	83.3	.58	14.7	20	20	13	0	0	4	187.8	6.06	41	
Sept.	62.3	51.0	56.7	71	23	42	16	53	57	11	58.1	57.5	2.97	75.4	.58	14.7	17	18	13	0	0	1	105.4	3.51	28	
Oct.	56.6	44.1	50.5	61	15, 16	34	27	46	56	16	51.3	51.1	1.62	41.1	.35	8.9	3	17	12	0	0	0	106.7	3.44	33	
Nov.	48.3	37.3	42.8	60	9	25	17	36	48	21	43.9	48.8	3.14	79.8	.68	17.3	18	18	13	1	0	0	65.1	2.18	26	
Dec.	43.3	31.5	38.9	53	18	22	10	31	47	19	40.0	41.6	2.04	51.8	.41	10.4	26	15	12	1	0	0	20.8	0.67	9	
Totals	661.8	512.5	587.4								585.9	589.0	29.24	742.7				194	133	13	1	2	15	1211.1	397.7	27
Means	55.1	42.7	48.9								48.8	49.1												3.33	3.31	

CLIMATOLOGICAL SUMMARY—THE YORKSHIRE MUSEUM, YORK, 1930.

Latitude 53° 57' N., Longitude 1° 5' W. Gravity Correction + 0·8 Height above Mean Sea Level 56 ft.

1930.	Mean Pressure corrected to 32° F. and Lat. 45° and reduced to Mean Sea Level				Air Temperature.		Humidity.		Mean Amount of Cloud. 0-10.		Cloud Amount, 9 a.m. No. of Observations.				Force, Beaufort Scale		Wind, No. of Observations, 9 a.m. Direction.											
	9 a.m.	9 p.m.	9 a.m.	9 p.m.	9 a.m. 9 p.m.	9 a.m. 9 p.m.	Depression of Wet Bulb.	Vapour Pressure.	9 a.m. 9 p.m.	9 a.m. 9 p.m.	0	1-3	4-6	7-9	10	8 or more	1-7	1-3	in mi.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	
	mb.	mb.	ins.	ins.	° F.	° F.	° F.	mb.	mb.	%	%																	
	1006·0	1003·7	29·71	29·64	10·1	41·7	1·3	1·5	7·4	7·9	88	87	5·7	6·8	1	19	0	0	31	0	3	0	1	0	23	1	2	1
Jan.	1022·1	1023·1	30·18	30·21	36·0	36·7	1·5	1·3	6·0	6·5	85	87	8·5	7·8	3	19	0	0	28	0	10	8	4	3	2	0	1	0
Feb.	1010·7	1009·9	29·85	29·83	40·7	40·4	2·3	1·8	7·0	7·1	79	84	6·2	7·6	6	20	0	0	31	0	9	4	0	4	9	2	1	2
Mar.	1010·9	1010·8	29·86	29·85	46·7	45·3	2·8	2·3	8·7	8·3	79	82	7·0	8·2	3	19	0	0	30	0	11	4	3	2	6	1	2	1
April	1015·3	1015·3	29·98	29·95	51·5	49·8	4·0	3·0	9·2	9·6	73	79	6·8	7·4	4	17	0	0	31	0	7	7	2	3	3	0	6	3
May	1016·3	1016·0	30·01	30·00	60·6	58·9	5·0	4·2	13·1	12·8	71	75	4·8	7·1	3	12	0	0	29	1	5	4	1	3	9	5	2	0
June	1009·1	1009·7	29·81	29·82	60·6	59·0	4·5	3·5	13·6	13·5	73	79	7·4	7·8	2	16	0	1	30	0	11	0	0	1	9	5	5	0
July	1010·7	1011·1	29·85	29·86	61·0	59·5	3·9	2·9	14·2	14·1	77	83	5·5	5·9	5	12	0	4	27	0	1	3	1	3	9	3	8	3
Aug.	1013·7	1011·3	29·91	29·95	56·8	55·5	3·1	2·1	13·0	12·7	82	86	6·7	7·1	5	18	0	1	28	1	8	2	3	1	8	2	3	2
Sept.	1008·3	1008·2	29·78	29·78	49·9	49·4	3·0	2·1	9·6	10·0	79	81	5·0	6·8	6	13	0	0	31	0	1	2	0	0	14	5	4	5
Oct.	1009·7	1009·0	29·82	29·80	42·0	41·8	1·9	1·7	7·6	7·7	83	85	5·8	5·6	9	13	0	1	29	0	8	0	0	2	8	4	4	4
Nov.	1011·5	1011·0	29·88	29·86	37·8	38·8	0·9	0·8	7·1	7·5	91	93	7·2	8·2	4	22	0	0	30	1	1	2	1	0	18	0	1	4
Dec.	1014·6	1014·2	30·86	30·88	58·7	57·8	3·2	2·2	11·5	11·7	960	1004	76·6	86·6	56	200	0	7	355	3	75	36	16	22	118	28	12	25
Year Totals	1012·1	1011·8	29·89	29·88	48·6	48·1	2·9	2·3	9·7	9·8	80	84	6·4	7·9														

Pressure is expressed in millibars (1000 millibars = 29·531 mercury inches), also in mercury inches.

RIVER HEIGHT RECORDS REGISTERED BY THE AUTOMATIC RECORDER  
AT THE GUILDHALL, YORK, 1930.

Date.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.	
	Time.	Above or below S.L. ft. in.	Time.	Above or below S.L. ft. in.	Time.	Above or below S.L. ft. in.	Time.	Above or below S.L. ft. in.	Time.	Above or below S.L. ft. in.	Time.	Above or below S.L. ft. in.
1	1 a.m.	above 11	12 p.m.	above 3	12 p.m.	above 1	12 p.m.	above 0	12 p.m.	above 1	5 p.m.	above 0
2	12 p.m.	9 0	3 p.m.	4 5	"	1 8	"	1 2	1 a.m.	1 7	noon	0 6
3	1 a.m.	9 0	noon	5 3	1 a.m.	1 9	9 p.m.	2 8	noon	1 3	3 p.m.	0 7
4	6 p.m.	9 6	1 a.m.	4 5	"	1 6	1 a.m.	2 7	10 p.m.	1 5	noon	0 6
5	1 a.m.	9 6	noon	3 2	10 p.m.	1 11	6 p.m.	1 9	12 p.m.	1 2	"	0 5
6	"	8 7	"	3 3	1 a.m.	1 10	5 p.m.	1 9	"	1 1	"	0 5
7	"	7 6	"	3 3	12 p.m.	2 0	12 p.m.	2 8	6 p.m.	1 1	1 a.m.	0 6
8	5 a.m.	6 11	1 a.m.	3 0	6 a.m.	2 1	1 a.m.	2 8	12 p.m.	1 2	4 p.m.	0 6
9	1 a.m.	6 5	"	2 4	3 p.m.	1 8	"	1 10	9 p.m.	1 3	12 p.m.	0 4
10	12 p.m.	4 10	"	1 11	12 p.m.	2 8	12 p.m.	3 2	"	1 4	"	0 6
11	"	8 11	"	1 9	6 a.m.	2 10	6 a.m.	3 3	4 p.m.	1 4	1 a.m.	0 6
12	3 a.m.	9 1	"	1 1	1 a.m.	2 5	1 a.m.	2 4	10 p.m.	1 5	12 p.m.	0 9
13	1 a.m.	7 6	"	1 1	"	1 1	"	1 6	1 a.m.	1 4	1 a.m.	0 8
14	12 p.m.	9 9	"	1 0	"	2 2	12 p.m.	1 3	12 p.m.	1 3	"	0 6
15	"	11 11	"	0 11	"	1 8	1 a.m.	1 3	2 p.m.	1 3	4 p.m.	0 6
16	1 a.m.	11 11	4 p.m.	0 11	12 p.m.	3 7	1 a.m.	1 1	1 a.m.	1 2	noon	0 3
17	"	10 7	1 a.m.	0 10	noon	5 3	"	0 8	"	0 11	12 p.m.	0 6
18	"	8 2	7 p.m.	0 5	1 a.m.	5 1	"	0 5	6 p.m.	1 1	7 p.m.	1 11
19	3 a.m.	6 3	12 p.m.	1 2	"	4 4	12 p.m.	0 7	3 p.m.	1 4	noon	0 8
20	1 a.m.	4 6	noon	1 3	"	3 5	"	4 7	12 p.m.	1 4	1 a.m.	0 8
21	"	3 0	1 p.m.	1 3	5 p.m.	2 4	1 a.m.	4 7	1 a.m.	1 4	noon	0 6
22	12 p.m.	2 8	12 p.m.	1 3	4 p.m.	3 5	"	3 3	"	1 1	1 a.m.	0 6
23	"	3 3	"	1 4	1 a.m.	3 1	"	2 4	"	0 11	12 p.m.	0 6
24	3 a.m.	3 4	1 a.m.	1 3	"	2 6	"	1 10	11 a.m.	0 7	noon	0 6
25	12 p.m.	3 10	2 p.m.	1 2	6 p.m.	2 0	12 p.m.	4 10	6 a.m.	0 6	2 p.m.	0 11
26	1 a.m.	3 10	3 p.m.	1 2	8 p.m.	4 2	6 a.m.	5 1	10 p.m.	0 10	1 a.m.	0 8
27	12 p.m.	4 2	8 p.m.	1 2	1 p.m.	4 2	1 a.m.	4 1	9 p.m.	0 11	noon	0 5
28	noon	5 10	12 p.m.	1 3	1 a.m.	3 10	"	2 5	3 p.m.	1 1	1 a.m.	0 6
29	1 a.m.	5 0	"	"	"	3 3	"	1 8	4 p.m.	0 10	4 p.m.	0 5
30	"	3 2	"	2 3	"	2 3	"	1 5	3 p.m.	0 8	noon	0 4
31	12 p.m.	2 9	"	1 6	"	1 6	"	"	1 a.m.	0 7	"	"



# RIVER HEIGHT RECORDS.

Date.	JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.	
	Time.	Above or below S.L. ft. in.	Time.	Above or below S.L. ft. in.	Time.	Above or below S.L. ft. in.	Time.	Above or below S.L. ft. in.	Time.	Above or below S.L. ft. in.	Time.	Above or below S.L. ft. in.
1	noon	above 0	4	above 1	9	above 2	5	above 2	3	above 3	1	above 1
2	"	0	5	1	3	12 p.m.	0	11	8	12 p.m.	5	2
3	"	0	5	3	9	9 p.m.	1	0	7	noon	7	2
4	"	0	5	3	10	6 p.m.	0	14	2	1 a.m.	6	0
5	"	0	5	3	10	Recorder stopped until noon on 8th.		1	7	1 a.m.	5	1
6	"	0	4	3	7			6	8	"	3	9
7	"	0	5	1	4	6 p.m.	0	11	4	"	3	8
8	"	0	5	1	5	5 p.m.	0	10	3	12 p.m.	4	6
9	"	0	5	1	5	"	0	10	7	1 a.m.	4	7
10	"	0	5	0	11	12 p.m.	2	1	5	noon	3	0
11	"	0	5	1	1	5 p.m.	3	11	11	1 a.m.	6	11
12	"	0	4	1	3	1 a.m.	3	4	3	"	2	0
13	"	0	3	2	3	12 p.m.	3	10	2	10 p.m.	1	3
14	"	0	3	2	3	1 a.m.	3	10	9	"	6	9
15	"	0	5	2	1	3 a.m.	2	1	7	6 a.m.	5	2
16	12 p.m.	0	9	1	2	1 a.m.	2	0	5	1 a.m.	3	2
17	"	1	0	0	6	"	1	7	4	"	2	2
18	"	1	2	0	5	12 p.m.	5	4	5	"	1	11
19	noon	1	1	0	5	7 a.m.	6	6	6	12 p.m.	1	11
20	"	1	1	0	11	1 a.m.	4	9	6	1 a.m.	1	11
21	12 p.m.	3	10	4	6	noon	5	0	9	4 p.m.	1	9
22	6 a.m.	4	9	7	10	1 a.m.	4	1	8	1 a.m.	1	8
23	12 p.m.	8	1	7	10	"	1	10	9	"	1	1
24	1 a.m.	8	1	3	8	12 p.m.	2	7	8	12 p.m.	1	9
25	"	7	7	1	6	1 a.m.	2	7	7	3 p.m.	1	9
26	"	4	6	0	11	noon	2	3	6	12 p.m.	1	5
27	"	3	3	1	2	12 p.m.	1	9	5	"	4	7
28	"	3	1	1	0	noon	5	9	4	2 p.m.	2	1
29	"	0	10	1	10	1 a.m.	5	0	3	12 p.m.	7	10
30	2 p.m.	2	6	3	5	"	2	10	2	4 a.m.	7	11
31	1 a.m.	2	0	3	5	1 a.m.	3	3	3	12 p.m.	7	2

THE YORKSHIRE MUSEUM, 1930.

BRIGHT SUNSHINE.			Pressure at Mean Sea Level			
Month	Daily Mean.	Per- centage.	Highest.	Date.	Absolute.	
	1930	1929			1930	Lowest.
	Hours.	%	%	mb.		mb.
Jan.	1-08	13	14	1025-9	16th, 9 a.m.	974-7 12th, 9 p.m.
Feb.	1-21	8	12	1012-7	9th, 9 a.m.	980-1 1st, 9 a.m.
Mar.	2-58	36	22	1036-7	1st, 9 a.m.	987-8 16th, 9 a.m.
Apr.	2-89	35	21	1025-3	7th, 9 p.m.	994-6 13th, 9 p.m.
May	4-42	33	28	1024-6	21st, 23rd, 9 a.m.	994-4 11th, 9 a.m.
June	6-66	31	39	1029-3	15th, 9 a.m.	1004-5 24th, 9 a.m.
July	5-07	32	31	1024-5	9th, 9 p.m.	991-8 18th, 9 a.m.
Aug.	6-06	33	41	1027-7	31st, 9 p.m.	993-5 4th, 9 a.m.
Sept.	3-51	38	28	1032-1	3rd, 9 p.m.	986-0 20th, 9 a.m.
Oct.	3-44	32	33	1032-3	2nd, 9 a.m.	993-5 5th, 9 p.m.
Nov.	2-18	18	26	1037-5	12th, 9 a.m.	973-0 2nd, 9 p.m.
Dec.	0-67	16	9	1031-9	22nd, 9 a.m.	981-2 31st, 9 a.m.
Year. Mean or Extreme	3-31	29	27	1012-7	Feb, 9th, 9 a.m.	973-0 Nov. 2nd, 9 p.m.

RAINFALL IN 1930

AT CHERRY HILL, YORK.

Rain Gauge: Dia. of Funnel, 5 in.;  
Height Above Ground, 1ft. 6in.  
" Above Sea Level, about 50ft.

Month	Inches	Wet days	Greatest Fall	Date
Jan.	3-00	17	-77	14
Feb.	-85	8	-48	8-9
Mar.	1-45	7	-97	14-15
April	2-27	12	-48	24
May	1-10	10	-39	7-8
June	1-71	9	-93	18
July	4-72	12	1-22	22
Aug.	3-34	17	-61	21
Sept.	2-93	16	-55	17
Oct.	1-63	13	-36	3
Nov.	3-40	18	-65	1-2
Dec.	2-00	15	-40	12
Totals	28-10	154		

# ADDITIONS TO THE MUSEUM

DURING 1930.

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- EDWARD ALLEN.—Stuffed Hen Harrier.
- THE REV. A. B. BROWNE.—Shot Measure.
- HUMPHREY B. BROWNE.—Stone Celt from Ontario.
- COL. EDWARD A. BULWER.—Menborough Tea Pot.
- R. H. CHAPMAN.—Coloured Print of the Hospitium.
- ARTHUR CLAYTON.—Sovereign Scale.
- CECIL H. COBB, M.A.—Four old Deeds.
- PHILIP CORDER, M.A.—2 Denarii of Trajan and 1 of Hadrian, being part of a hoard found near Scarborough Bridge.
- G. P. CROSS.—Gloucestershire Token.
- G. S. DICKINSON.—Ten Coins and Tokens.
- J. C. FENTON.—Pair of Worsted Nippers, Ivory Whistle and old Razor.
- J. E. GIBBS, A.M.I.M.E., M.I.A.E.—Part of Roman pot Figure.
- H. C. GREENWOOD.—£1 Note, Ripon Bank, 1821.
- MISS E. HOLMES.—Mica schist from Loch Lomond.
- ARTHUR HURST, A.K.C.—Three prints of Marks taken from the actual copper plates at the Rockingham Works, 1824-40; Coloured Print of York; York Silver Fork by Messrs. Hampton & Prince, 1861.
- G. KILVINGTON.—Old leaded light from 10, Stonegate.
- W. H. KNIGHT, M.R.S.I., etc.—Three old Yorkshire Bank Notes.
- G. W. LENG.—Old Paper Knife.
- A. W. LINFOOT.—Roman Lamp found at Morpeth; Fragments of green glazed Pottery.
- MISS C. MOREY.—Roman Tile, Leg. IX. Hisp.
- CUTHBERT MORRELL.—Leeds Token, 1670, Dawson-Peny.
- HENRY PECKITT.—Old View of York.
- DR. H. A. PHILLIPS.—York minted Coin of Edward VI.; Etching of Micklegate Bar.

J. R. POAD.—Cannon Ball, found at Marston Moor about 1880.

HENRY ROEBUCK.—Signed Engraving of John Brook.

CHARLES SCOTT.—Balmoral Dinner Plate.

H. V. SCOTT.—Roman (?) iron Spear Head, found in garden, Clifton, York.

A. SIMPSON.—Old Mole Trap.

CHARLES HENRY SIMPSON.—Chirurgian's Knife.

SMITH'S (JOHN) TADCASTER BREWERY Co. LTD.—Linen Fold Door from the Old Mail Coach Inn, St. Sampson's Square, York.

SIDNEY H. SMITH, F.Z.S.—Horn Snuff Box; Tobacco Pipe from Dunnington Gravel Pits; John of Gaunt Halfpenny, 1794; Little Owl in the flesh, from Sheriff Hutton.

H. SOWDEN.—Two specimens of *Pentacrinus tuberculatus*, Miller.

THOMAS SPRATT.—Pocket Calendar for the year 1742.

W. H. ST. QUINTIN, D.L., J.P.—American green-winged Teal, duck and drake.

J. TRIFFITT.—Two Line Blocks; Wrought Iron Kettle Holder and converted Stand and Lamp.

F. W. TURNER.—Long Service and Good Conduct Medal, 1852-53; Egyptian Medal, 1882; Egyptian Star, 1882; Regimental Ring, 17th Lancers.

W. G. UNDERWOOD.—Old iron Kettle and Toasting Iron.

MAJOR WAILES-FAIRBAIRN.—Lower Stone of Rotary Quern from Askham Richard.

MRS. WAITE.—Stuffed Ruff from Lincolnshire.

LORD AND LADY WAVERTREE.—Framed and glazed Picture of the Japanese Garden at the National Stud, Kildare.

THE REV. W. D. WOOD-REES.—Bone of Mammoth from Shiptonthorpe.

V. G. F. ZIMMERMANN.—Peregrine Falcon.

## ADDITIONS TO THE GARDENS

DURING 1930.

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C. E. ELMHIRST, J.P.—Seeds of *Quercus ilex-lucombrana*.

DR. G. W. MICKLETHWAITE.—Ten loads of Rockery Stone.

W. H. ST. QUINTIN, D.L., J.P.—Seeds and Seedlings of *Meconopsis baileyi*.

## LOAN.

THE VICAR AND CHURCHWARDENS.—Centre of Alabaster Altarpiece found during excavations outside the Church of St. Helen, Thorganby-cum-West Cottingwith, 1930.

## ADDITIONS TO THE LIBRARY

DURING 1930.

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ARKELL, W. J. (Author).—"A Monograph of British Corallian Lamellibranchia."

ASHMOLEAN MUSEUM.—Report of the Visitors, 1929.

ASHMOLEAN NATURAL HISTORY SOCIETY OF OXFORDSHIRE.—Proceedings and Report for 1929.

AUCKLAND (NEW ZEALAND).—Auckland Institute and Museum.—Records, vol. i, no. 1 (1930): Guide to the Josiah Wedgwood Bicentenary Exhibition, May 14th to 31st, 1930.

AUSTRALIAN MUSEUM.—Annual Report for year ended 30th June, 1929.

BELFAST NATURAL HISTORY AND PHILOSOPHICAL SOCIETY.—Proceedings and Reports, 1928-29.

BOSTON, MASS., U.S.A.—Bulletin of the Society for the Preservation of New England Antiquities ("Old-time New England,") vol. xx, nos. 3, 4; xxi, nos. 1, 2.

BRIGHTON AND HOVE NATURAL HISTORY AND PHILOSOPHICAL SOCIETY.—Annual Report for year ending 30th June, 1929.

BRISTOL NATURALISTS' SOCIETY.—Annual Report and Proceedings 4th series, vol. vii, part 2, (1929).

- BURDEKIN, J. L.—“Articles taken from Burdekin's ‘Old Moore's Almanack’ (1924-30).” (By George Benson, A.R.I.B.A.)
- CAHILL, R. S.—Journal of the Chemical Society, Jan.—Dec., 1930; British Chemical Abstracts, Jan.—Dec., 1930.
- CANADA, DEPARTMENT OF MINES.—Report for the year ending March 31st, 1929.
- CARDIFF, NATIONAL MUSEUM OF WALES.—22nd Annual Report, 1928-29.
- COLCHESTER AND ESSEX MUSEUM.—Annual Report, 1929; Catalogue of the Roman Pottery in the Colchester and Essex Museum (Thomas May) (1930).
- DUNSTABLE LIBRARY AND MUSEUM.—5th Annual Report (Museum) 1929-30.
- EDINBURGH, ROYAL SOCIETY OF.—Proceedings, vol. xlix, pt. 4; 1, pts. 1-3; Transactions, vol. lvi, pt. 2.
- FARQUHAR, MISS HELEN (Authoress).—Royal Charities (Second Series), pts. 3, 4; The Shrewsbury Medal.
- FOX, DR. CYRIL.—“Offa's Dyke: a Field Survey,” (5th Report) (By Cyril Fox, Ph.D., F.S.A., and D. W. Phillips, B.A.) (Reprinted from “Archæologia Cambrensis, June, 1930).
- GAYNER, J. S.—Journal of the Marine Biological Association of the United Kingdom.—New Series, vol. xvi, nos. 2, 3; xvii, no. 1.
- GLOUCESTER, CITY OF.—Report of the Public Museum Committee for the two years ending March 31st, 1930.
- GOODYEAR, H. S.—(late Secretary, Yorkshire Rifle Association)—Yorkshire Rifle Association.—7 vols. Annual Reports, 1861-1922; 2 Minute Books, 1866-1922.
- HALIFAX LITERARY AND PHILOSOPHICAL SOCIETY.—Centenary Handbook (1830-1930).
- HAWAIIAN VOLCANO OBSERVATORY.—Monthly Bulletin, vol. xvi, nos. 11, 12; xvii, nos. 1-7; Volcano Letter, nos. 254-258, 260-309.
- HOLLAND (Heerlen).—Geologisch Bureau voor het Nederlandsche Mijng gebied te Heerlen.—Jaarverslag, 1928.
- HULL MUSEUM.—Publications, nos. 161, 163-166.
- ILLINOIS STATE GEOLOGICAL SURVEY.—Bulletin, no. 57; Report of Investigations, nos. 19, 20.

- INDIA (Calcutta), GEOLOGICAL SURVEY OF INDIA.—Records, vol. lxii, pt. 4; lxiii, pts. 1-3; lxiv; Memoirs, vol. liv, lv (pt. 1), lvi; Memoir (Palaeontologia Indica), New Series, vol. xv, pts. 1-8; xvi.
- ITALY (Rome).—*Bollettino dell' Associazione Internazionale degli Studi Mediterranei*.—Anno i, num. 2-5.
- JAPAN, NATIONAL RESEARCH COUNCIL OF.—*Japanese Journal of Zoology*, vol. ii, no. 4; vol. ii (Contents); iii, nos. 1, 2.
- JOHNSON, PROF. T.—*Nine Papers on Fossil Plants*.
- LEEDS PHILOSOPHICAL AND LITERARY SOCIETY.—*Proceedings*, Literary and Historical Section, vol. ii, pts. 3, 4; Scientific Section, vol. ii, pts. 2, 3.
- UNIVERSITY.—25th Report (1928-29); Publications and Abstracts of Theses by Members of the University during Session 1928-29.
- LEICESTER LITERARY AND PHILOSOPHICAL SOCIETY.—*Transactions*, vol. xxxi (1929-30).
- MUSEUM, ART GALLERY AND LIBRARY.—*Bulletin*, quarterly, no. 24; 26th Report (1929-30).
- LEIPZIG.—*Mitteilungen der Gesellschaft für Erdkunde zu Leipzig*, 1925-29.
- LONDON, BRITISH MUSEUM (Natural History).—*Index animalium* (Sherborn), pts. 17-22.
- GEOLOGICAL SOCIETY OF.—*Quarterly Journal*, vol. lxxxv, pt. 4 (340); lxxxvi, pts. 1-4 (341-344): Geological Literature added to the Geological Society's Library during 1929.
- GEOLOGICAL SURVEY OF GREAT BRITAIN.—*Summary of Progress for 1929* (pts. 1-3); *The Country around Huddersfield and Halifax*. (By D. A. Wray, J. V. Stephens, W. N. Edwards and C. E. N. Bromehead).
- H.M. STATIONERY OFFICE.—*Quarterly Return of Marriages, Births and Deaths*, nos. 324-327.
- METEOROLOGICAL OFFICE.—*Monthly Weather Reports*, *Supplements*, etc., etc.
- VICTORIA AND ALBERT MUSEUM.—“*English Mediæval Art, Catalogue of Exhibition, 1930*”: *English Mediæval Art, Illustrations*.
- ZOOLOGICAL SOCIETY.—*Proceedings*, pts. 3, 4, 1929; 1-3, 1930; *Transactions*, vol. xxi, pt. 2; *Index*, 1921-28.

- MADISON, (WISCONSIN), U.S.A.—WISCONSIN ACADEMY OF SCIENCES, ARTS AND LETTERS.—Transactions, vols. xxiv, xxv.
- MANCHESTER, JOHN RYLANDS LIBRARY.—Bulletin, vol. 14, no. 1.
- LITERARY AND PHILOSOPHICAL SOCIETY.—Memoirs and Proceedings, vol. lxxiii (1928-29).
- MUSEUM.—Museum Publications, nos. 97, 99, 100.
- MELMORE, P. B.—Glendining's "Catalogue of a Choice Collection of the Coins of Charles I. (1919)."
- MEXICO, OBSERVATORIO ASTRONÓMICO NACIONAL DE TACUBAYA.—Anuario, 1931 (Año li).
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- NEW YORK ACADEMY OF SCIENCES.—Annals, vol. xxxi (pp. 121-186; xxxii (pp. 1-220) (3 pts.): Index to vols. xxv, xxviii, xxix, xxx, xxxi.
- PUBLIC LIBRARY.—Bulletin, vol. xxxiv, nos. 1-12.
- NORTHAMPTON, COUNTY BOROUGH OF.—The Public Libraries, Museums and Art Gallery.—Report, 1928-29.
- NORTHANTS. NATURAL HISTORY SOCIETY AND FIELD CLUB.—Journal, vol. xxv, nos. 197-200.
- NORTHUMBERLAND, DURHAM AND NEWCASTLE-ON-TYNE NATURAL HISTORY SOCIETY.—History of the Natural History Society of Northumberland, Durham and Newcastle-upon-Tyne, 1829-1929, (By T. Russell Goddard); Report for 1929-30; Transactions (New Series), vol. vii, pt. i.
- NORWAY, BERGEN MUSEUM.—Arsberetning, 1928-29; Arbok, 1929, 3 Hefte.
- OSLO, METEOROLOGICAL INSTITUTE.—Jahrbuch des Norwegischen Meteorologischen Instituts, 1929; Nedboriakttagelser i Norge, Argang xxxv. (1929); Arsberetning (1st July, 1928—30th June, 1929); Radiovær, 1930.
- TRONDHJEM.—Det. Kongelige Norske Videnskabers Selskab. Arsberetning, 1928; Oldsaksamlingens Tilvekst 1928; Forhandlinger Bd. II (1929); Skrifter, 1929.
- NOVA SCOTIAN INSTITUTE OF SCIENCE.—Proceedings and Transactions, vol. xvii, pt. 3 (1928-1929).
- OXFORD UNIVERSITY MUSEUM.—42nd Annual Report (1929).



- PERTSHIRE SOCIETY OF NATURAL SCIENCE.—Transactions and Proceedings, vol. viii, pt. 6 (1928-29).
- ROCHESTER, N.Y.—ROCHESTER ACADEMY OF SCIENCE.—Proceedings, vol. vi, no. 8; vii, no. 1.
- RUSSIA, (Leningrad) LA SOCIÉTÉ RUSSE DE MINÉRALOGIE.—Mémoires de.—Vol. lviii, pts. 1, 2.
- (Perm) UNIVERSITY OF PERM.—Bulletin, vol. vii, nos. 1-5.
- SALFORD, CITY OF.—81st Report of the Museums, Libraries, and Parks Committee (1928-29).
- SALISBURY, SOUTH WILTS AND BLACKMORE MUSEUM.—Annual Report, 1929-30.
- SCOTTISH MARINE BIOLOGICAL ASSOCIATION.—Annual Reports, 1928-29; 1929-30; "An Instrument for Sampling Marine Muds," (H. B. Moore, B.Sc., and R. G. Neill, B.A.); "The Muds of the Clyde Sea Area—i.—Phosphate and Nitrogen Contents," (H. B. Moore, B.Sc.); "Apparatus for Rapid Electrometric Titration" (R. G. Neill, B.A.); "Notes on the Rate of Growth of *Tellina tenuis*, da Costa in the Firth of Clyde" (A. C. Stephen, B.Sc.); "Preservation of Colour in Marine Organisms (Preliminary Note)" (R. Elmhirst); "Notes on the Growth of Lobsters"; Bacteria of the Clyde Sea Area: a Quantitative Investigation" (Blodwen Lloyd, M.Sc., Ph.D.); "A Study of the Spring Diatom Increase in Loch Striven" (S. M. Marshall, B.Sc., and A. P. Orr, M.A., B.Sc., A.I.C.)
- SHEFFIELD, CITY OF.—Report of the Public Museums and Mapping Art Gallery from 1st April, 1926 to 31st March, 1930.
- SHEFFIELD LITERARY AND PHILOSOPHICAL SOCIETY.—107th Annual Report (for 1929).
- SHETELIG, DR. HAAKON.—"Das Nydamschiff" (By Haakon Shetelig and Fr. Johannessen) (1930).
- ST. QUINTIN, W. H.—"Catalogue of the Exhibition of English Mediæval Art" (Victoria and Albert Museum, 1930).
- SWANSEA SCIENTIFIC AND FIELD NATURALISTS' SOCIETY.—Proceedings, vol. i, pts. 1-3.
- THOMPSON, RICHARD.—"Elizabethan Sheldon Tapestries" (John Humphreys, M.A., F.S.A.) (1929).
- TORONTO, UNIVERSITY OF.—Studies, Biological Series, no. 33.

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UPSALA (Sweden), GEOLOGICAL INSTITUTION OF THE UNIVERSITY OF UPSALA.—Bulletin, vols. xxi, xxii (1930).

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—(Pullman) RESEARCH STUDIES OF THE STATE COLLEGE OF WASHINGTON.—Vol. i, nos. 3, 4; vol. ii, nos. 1, 2; Occasional Papers of the Charles R. Conner Museum, nos. 1, 2.

—SMITHSONIAN INSTITUTION.—Annual Report for year ending June 30th, 1928.

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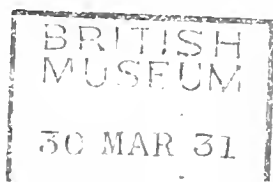
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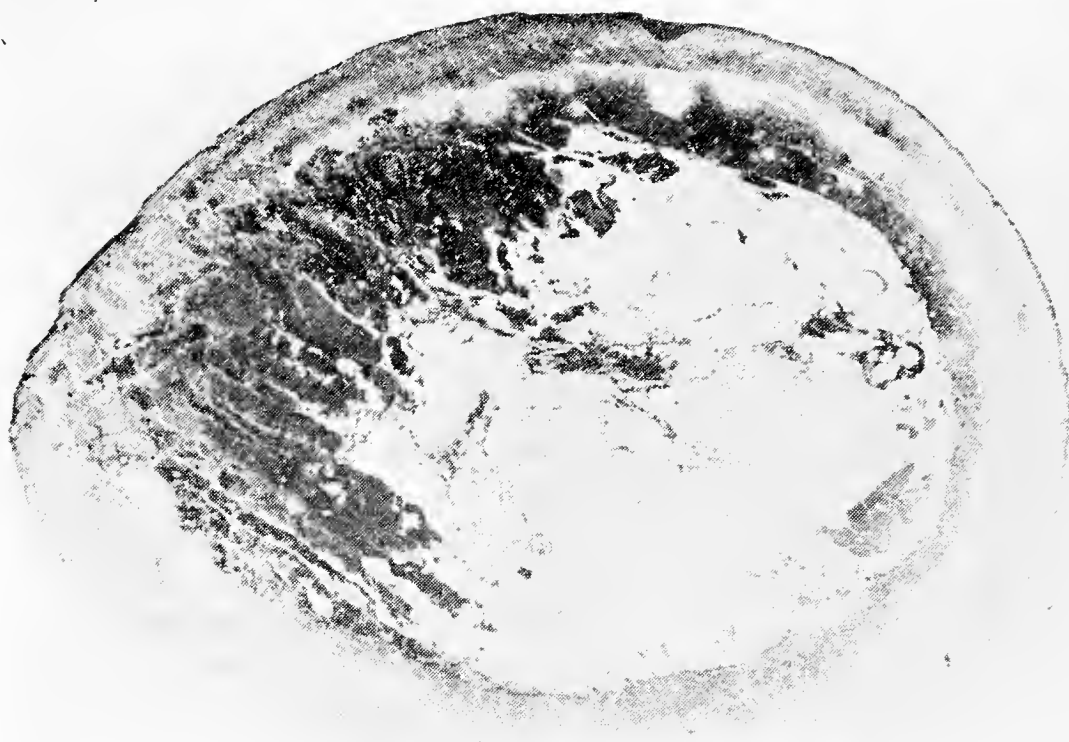


FIG. 1. x105



FIG. 2. x35



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PROCEEDINGS  
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A REPTILIAN EGG FROM THE LIAS OF WHITBY.

BY SIDNEY MELMORE, B.Sc., F.G.S.

The specimen here described was originally in the collection of Edward Wood, of Richmond, and is now in the Yorkshire Museum. It was originally labelled "Coprolite of *Ichthyosaurus*, Lias, Whitby."

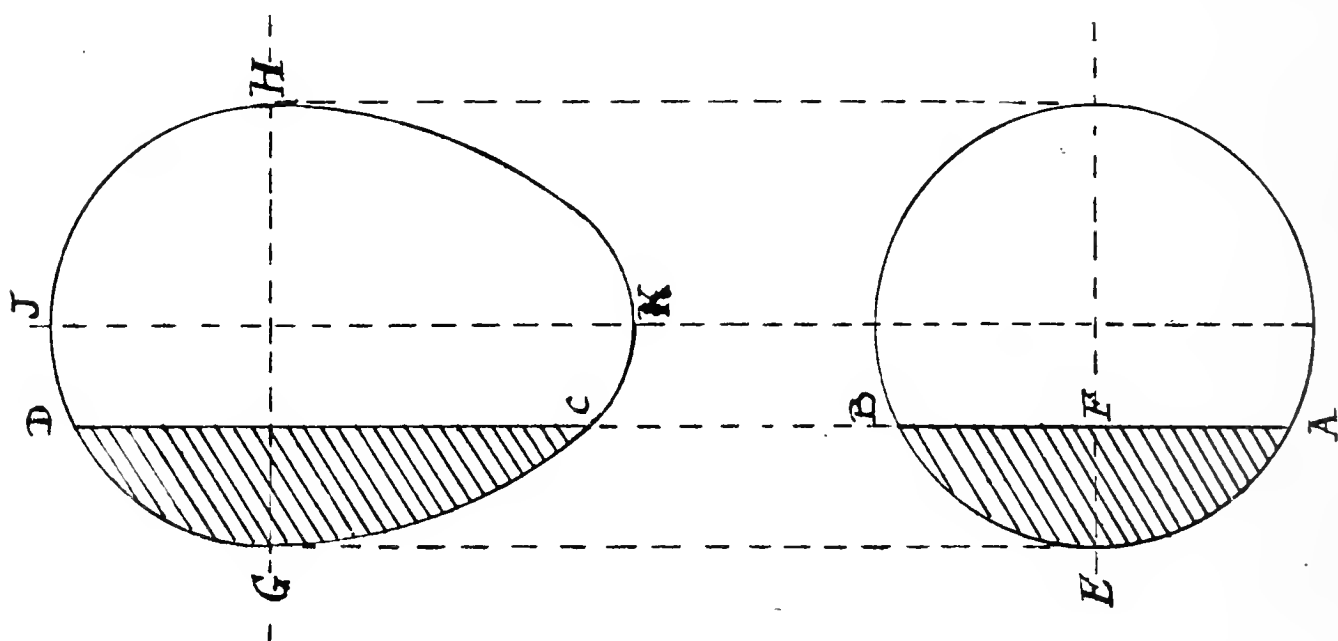
The natural surface of the specimen is smooth and egg-shaped (heteropolar), without the potato-like aspect with concavities or "eyes" seen on the surface of many coprolites. It has also one flat artificially polished surface (Pl. I, Fig. 1) 8.0 cm. in length (CD), and 5.9 cm. in diameter (AB). It is 1.7 cm. thick (EF). \*

The polished surface shows an outer band of pyrite 0.5 cm. thick. This band is fairly compact at its inner edge and diffuse near the surface of the specimen. This is followed by a band of slate-blue mudstone 0.4 to 0.5 cm. thick. The innermost part of the specimen at the less rounded end is made up of strings and irregular patches of chocolate-brown marl. This penetrates the mudstone and pyrite layers and comes to the surface. In the more rounded end this gives place to an involved mass of a dull white substance. On the assumption that the specimen was a coprolite it was expected this would prove to be calcium phosphate. Examination however proved it to be compact scaly calcite. A minute

\* Thin sections have since been cut from the specimen and it has been repolished.

fragment was picked out and examined under the microscope. It had the refractive index of calcite and was soluble with effervescence in HCl. The mudstone and brown marl also effervesced with acid.

Given the dimensions AB, EF, we can calculate the original diameter GH, and arrive at the value 6.7 cm. Knowing the length of the polished surface CD, and taking the original length JK proportional to the original diameter, we find JK equal to 9.2 cm.



On account of its shape and internal structure the specimen can hardly be regarded as a coprolite. Nor does it appear to be of purely physical origin, since the pyrite cannot be explained as a Liesegang ring since it does not follow the contour of the nucleus but is penetrated by it as already described.

A transverse section (Pl. 1, Fig. 2) and two tangential sections through the outer edge of the pyrite have been cut from the specimen. These show that it becomes thoroughly compact at a distance of about 0.7 mm. from the inner edge and is devoid of any organic structure. The mudstone on both sides of the pyrite contains a few foraminifera.

V. van Straelen has shown\* that among the eggs of fossil reptiles there are those with shells whose mamillary and prismatic zones and canals can be clearly recognised under the microscope: and those contained in a parchment-like covering without microstructure.

\* V. van Straelen. *Les Oeufs de Reptiles fossiles*. *Palæobiologica*, 1 Band (1928), p. 295.

This specimen evidently belongs to the latter type, the pyrite having been deposited by double decomposition across the membrane in the manner well known to mineral synthesists. The sulphuretted hydrogen from the egg may perhaps have initiated the deposition which took place sufficiently soon to harden the membrane and prevent it collapsing.

It is not without significance that some of the oldest reptilian eggs hitherto known (from the Bathonian of Stonesfield)\* are heteropolar and have parchment-like shells. Assuming the original parchment covering to have been situated where the pyrite is most compact, the length of the complete egg must have been 8.5 cm. and the greatest width 6.0 cm.

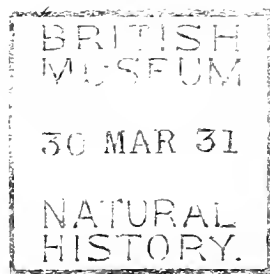
H. G. Seeley has shown that some species of *Ichthyosaurus* and *Plesiosaurus* were viviparous.†

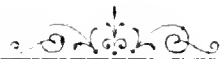
If then this specimen is indeed a reptilian egg it may perhaps be referred to Crocodilia, and in point of size it agrees with eggs of existing crocodiles.

In conclusion I desire to express my thanks to Sir Arthur Smith Woodward, LL.D., F.R.S., for much valued help and encouragement in the course of this work.

\* W. Carruthers. On some Supposed Vegetable Fossils. Quart. Jour. Geol. Soc., vol. xxvii. (1871), p. 445; V. van. Straelen, op. cit., p. 306.

† Brit. Assoc. Rept., 1880, p. 68; Ibid., 1887, p. 697; Ann. Rept. Yorks. Phil. Soc. for 1895 (1896), p. 20.





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WALTER E. COLLINGE,  
*Keeper of the Museum.*

MARCH, 1931.





















